

### REMARKS

The Examiner is thanked for the performance of a thorough search.

### **REMARKS TO ADDRESS NOTICE OF NON-COMPLIANT AMENDMENT**

The Notice of Non-Compliant Amendment states that the amendments to the claims are non-compliant because “the amendment includes new claims 44-66. The applicant has not indicated where support for the claimed subject matter can be found in the disclosure. The claim language should be consistent with the disclosure and no new matter should be entered.”

In the previous response, the Applicant provided a table (which is included in this response and reproduced herein below) in which similar features among the method claims, computer-readable storage medium claims, and communications device claims are associated with each other. For example, in the first row of the table, method Claims 1-2 and computer-readable storage medium Claims 38-39 have similar features to device Claims 44-45. Thus, support for new device Claims 44-45 can be found in the disclosure within Claims 1-2 and 38-39 themselves. Support for the other newly added computer-readable storage medium and communications devices claims is likewise found in originally method filed claims as indicated in that table below for the remainder of newly added Claims 44-66, except for Claims 52, 63, and 47, for which no corresponding claim was originally included, and which is addressed further herein.

While the Applicant believes that the previously provided table provides support all of the newly added claims (except for Claims 52, 63, and 47 noted above), the Applicant is providing herein a more detailed listing of the new claims and how such are supported by previously filed claims with references to both the corresponding method and/or computer-readable medium claims, along with an identification of support in the originally filed disclosure, namely the specification and drawings, for all the added claims.

The following discussion first discusses support for computer-readable storage medium and communications device claims that applies to all claims of either type, followed

by identifying support for individual claims of the various types that have the same or similar features among the claims of the different types. The support for the claims identified herein is not intended to be an exclusive list of all portions of the disclosure that support the claims being addressed, and other portions of the originally filed specification, claims, and drawings may provide additional support not specifically identified herein.

**A. SUPPORT FOR COMPUTER-READABLE STORAGE MEDIUM CLAIMS**

Newly added computer-readable storage medium Claims 63, 55-62, and 64-66 are supported by their respective independent computer-readable storage medium Claims 41, 42, and 43, respectively. In addition, the computer-readable storage medium claims are supported by at least the following: page 9, lines 17-18; page 71, line 22 – page 73, line 4; and Figure 8.

**B. SUPPORT FOR COMMUNICATIONS DEVICE CLAIMS**

Newly added communications device Claims 44-45, 46-47, 53-54, and 48-51 are supported by originally filed communications device Claims 28, 29, 32-33, and 36-37. In addition, the communications device claims are supported by at least the following: page 8, lines 3-16; page 15, line 2 – page 17, line 2; page 70, line 13 – page 74, line 10; and Figures 1A-1C and 8.

**C. CLAIMS 44-66**

**Claim 44** is supported by both Claims 1 and 38, plus at least the following: page 8, 2-18; page 20, line 19 to page 21, line 12; page 54, line 23 to page 55, line 10; and page 48, line 24 to page 49, line 49.

**Claim 45** is supported by both Claims 2 and 39, plus at least the following: page 8, lines 2-18; page 19, lines 13-27; Figure 1D; page 38, line 10 – page 40, line 16; and Figure 3A.

**Claim 46** is supported by both Claims 4 and 41, plus at least the following: page 8, line 3 – page 9, line 2; page 19, lines 13-27; Figure 1D; page 38, line 10 – page 40, line 16; and Figure 3A.

**Claims 47, 52, and 63** are supported by at least the following: page 4, lines 1-10; and page 5, lines 11-23.

**Claim 48** is supported by both Claims 22 and 43, plus at least the following: page 8, line 3 – page 9, line 2; page 19, lines 13-27; Figure 1D; page 29, line 3 – page 33, line 9; page 38, line 10 – page 40, line 16; and Figure 3A.

**Claims 49 and 64** are supported by Claim 23, plus at least the following: page 8, lines 3-18; page 54, line 23 – page 56, line 17; and Figure 7A.

**Claims 50 and 65** are supported by Claim 24, plus at least the following: page 8, lines 3-18; page 20, line 3 – page 21, line 19; Figure 1D; page 53, line 18 – page 54, line 21; and Figure 5D.

**Claims 51 and 66** are supported by Claim 25, plus at least the following: page 8, lines 3-18; page 20, line 3 – page 21, line 19; Figure 1D; page 53, line 18 – page 54, line 21; and Figure 5D.

**Claims 53 and 60** are supported by Claim 13, plus at least the following: page 27, line 6 – page 28, line 24; and Figure 1F.

**Claims 54 and 61** are supported by Claim 17, plus at least the following: page 15, line 21 – page 25, line 3; and Figures 1A-1D.

**Claim 55** is supported by both Claims 6 and 29, plus at least the following: page 8, line 3 – page 9, line 2; page 16, lines 4-14; page 19, lines 13-27; Figure 1D; page 29, line 3 – page 33, line 9; page 38, line 10 – page 40, line 16; and Figure 3A.

**Claim 56** is supported by both Claims 8 and 32, plus at least the following: page 8, lines 2-18; page 19, lines 13-27; Figure 1D; page 38, line 10 – page 40, line 16; and Figure 3A.

**Claim 57** is supported by both Claims 9 and 33, plus at least the following: page 8, line 3 – page 9, line 2; page 19, lines 13-27; Figure 1D; page 29, line 3 – page 33, line 9; page 38, line 10 – page 40, line 16; and Figure 3A.

**Claim 58** is supported by both Claims 10 and 36, plus at least the following: page 15, line 21 – page 25, line 3; and Figures 1A-1D.

**Claim 59** is supported by both Claims 11 and 37, plus at least the following: page 15, line 21 – page 25, line 3; Figures 1A-1D; page 33, line 11 – page 38, line 8; Figures 2A-2B; page 55, line 14 – page 18, line 17; and Figure 7B.

**Claim 62** is supported by Claim 19, plus at least the following: page 8, line 19 – page 9, line 2; page 25, line 5 – page 27, line 4; Figure 1E; page 58, line 20 – page 70, line 11.

**D. CONCLUSION OF SUPPORT FOR NEWLY ADDED CLAIMS**

Based on the remarks provided above, the Applicant respectfully submits that newly added Claims 44-66 are fully supported by the specification, that no new matter is added, and therefore that the amendment previously provided and repeated above complies with 37 CFR 1.121.

Note that no changes to the previously submitted claim amendments are made herein as all previously submitted claim amendments, including new claims, are supported by the disclosure as originally filed, and therefore no new matter is included in the claim amendments.

**STATUS OF CLAIMS**

Claims 3, 7, 12, 14-16, 18, 20-21, 26-27, 30-31, 34-35, and 40 have been cancelled.

Claims 1-2, 4-6, 8-11, 13, 17, 19, 22-25, 28-29, 32-33, 36-39, and 41-43 have been amended.

Claims 44-66 have been added.

No claims have been withdrawn.

Claims 1-2, 4-6, 8-11, 13, 17, 19, 22-25, 28-29, 32-33, 36-39, and 41-66 are currently pending in the application.

The following table indicates which claims of the three types, method, computer-readable storage medium, and communications device, have similar features. The claims in bold are the independent claims.

<b>Method Claims</b>	<b>Computer-Readable Storage Medium Claims</b>	<b>Communications Device Claims</b>
1, 2	38, 39	44, 45
4, 52	41, 63	46, 47
5, 6, 8-11, 13, 17, 19	42, 55-62	28, 29, 32-33, 36-37, 53-54
22, 23-25	43, 64-66	48, 49-51

## INTERVIEW SUMMARY

The Applicant thanks the Examiner for the Interview conducted on November 2, 2005. The interview was between Examiner John Walsh, the applicant's attorney for the present application, Craig G. Holmes, and another applicant's attorney for a related application (S/N 09/939,105) that was also examined by Examiner Walsh and rejected based on the same prior art as the present application. Pending Claims 1-43 of the present application and the claims of the related application that were rejected in the Office Action were discussed along with U.S. Patent No. 6,745,034 issued to *Wang*. In particular, the discussion focused on the following regarding the present application: the 101 rejection and the Applicant's proposed amendment to the claims regarding the prior art, as well as another 101 rejection, a 112 rejection, and a double patenting rejection of the related application that are not pertinent to the present application.

Regarding the 101 rejection of the present application, agreement was reached that the computer-readable medium claims would be statutory if they recited a storage medium, and therefore, the medium claims are amended herein to recite a "computer-readable storage medium."

Regarding the prior art rejection based on *Wang*, the Applicant explained that a distinguishing feature of the present claims over *Wang* was that the first participant (e.g., the master in some implementations) communicates to the second participant (e.g., the associate master in some implementations) that the second participant has been designated to perform the one or more functions if any of the one or more handoff criteria are satisfied. This distinguishes the present claims over *Wang* because the two base stations in *Wang*, which are relied upon in the Office Action as disclosing the first and second participants, do not communicate with each other. In fact, as illustrated in Figure 1 of *Wang*, the base stations are outside of each others' cells, and therefore it is not possible for the base stations to communicate with each other. Furthermore, *Wang* fails to teach that the base stations can communicate with each other via a mobile phone, and rather that it is the mobile phone that requests a handoff from one base station to the next. Thus, the Applicant explained that *Wang* fails to disclose the proposed amendment that the first participant communicates to the second

participant to indicate that the second participant is designated to perform the functions if the handoff criteria are satisfied.

This proposed amendment is included herein for half of the independent claims, whereas the other independent claims are amended herein to include other distinguishing features of the claims over the cited prior art of *Wang*.

#### SUMMARY OF THE REJECTIONS/OBJECTIONS

Claims 38-43 have been rejected under 35 U.S.C. § 101 as allegedly directed to non-statutory subject matter. Claim 26 has been rejected under 35 U.S.C. § 112, second paragraph, as allegedly indefinite. Claims 1-43 have been rejected under 35 U.S.C. § 102(e) as allegedly anticipated by U.S. Patent Number 6,745,034 issued to Wang et al. ("*Wang*"). The rejections are respectfully traversed.

#### PRIOR ART REJECTIONS OF CLAIMS 38-43

As a preliminary matter, while the Office Action addresses Claims 38-43 in the 101 rejection, Claims 38-43 are not addressed in the prior art rejections, which only refer to Claims 1-37. However, because Claims 38-43 are computer-readable storage medium claims that correspond to method Claims 1-5 and 22, respectively, the Applicant has prepared this response on the basis that Claims 38-43 are rejected on the same rationale as Claims 1-5 and 22. However, if this is incorrect, the Applicant respectfully requests that the basis for rejecting Claims 38-43 based on the prior art be specifically addressed in a future Office Action.

#### RESPONSE TO THE 101 REJECTION OF CLAIMS 38-43

Claims 38-43 have been rejected under 35 U.S.C. § 101 as allegedly directed to non-statutory subject matter. Specifically, the Office Action states that Claims 38-43 are not limited to tangible embodiments, and in particular, the Office Action refers to the intangible embodiments described in the specification on page 72, such as light waves, acoustic waves, and radio waves.

As discussed during the Examiner Interview, the Applicant has amended Claims 38-43 to feature a “computer-readable storage medium,” which is also consistent with the rejection in the Office Action that “storage media would be statutory.” Therefore, the Applicant respectfully submits that the amendments to Claims 38-43 traverse the 101 rejection.

#### RESPONSE TO THE 112 REJECTION OF CLAIM 26

Claim 26 has been rejected under 35 U.S.C. § 112, second paragraph, as allegedly indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Office Action states that it is unclear how the first participant is the third participant.

Note that Claim 26 has been incorporated into Claim 23, with Claim 26 now being cancelled.

In Claim 22, from which Claim 23 depends, there are four participants: the first participant for which the performance of a communication channel is determined, a second participant that is selected based on the performance of the communications channel, a third participant that is assigned one or more functions, and a fourth participant that is designated to perform the functions if one or more handoff criteria are specified.

As written, the four participants of Claim 22 may be different participants. For example, the first and second participant may be slave participants and the second slave participant is selected from other slave participants based on the performance of the first communications channel between the first slave participant and the other slave participants (e.g., the second participant is selected because the second participant has the best performance of the set of slave participants over the first communications channel with the first slave participant). Also, the third participant may be a master participant while the fourth participant is an associate master participant, such as a slave participant designated to assume the functions of the master participant if the handoff criteria are satisfied.

Claim 23 is amended herein to clarify that the first participant is the same participant as the third participant. For example, as explained above, the third participant can be the master participant that is assigned the one or more functions. However, the master participant can also be the first participant in the steps of Claim 22, meaning that the second (slave)

participant from among a set of (slave) participants based on the performance of the first communications channel between the master participant and the slave participants. Thus, Claim 26 is directed to specifying that the features of Claim 22 may apply to fewer than four different participants as the roles of the first and third participants as featured in Claim 22 may be fulfilled by the same participant.

Therefore, the Applicant respectfully submits that Claim 23 is not indefinite because the roles of the first and third participants in Claim 22 may be fulfilled by the same participant.

## RESPONSE TO REJECTIONS BASED ON THE PRIOR ART OF *WANG*

### A. CLAIM 1

Claim 1 is directed to a method for managing a communications arrangement. As amended above, Claim 1 features the following, *inter alia*,:

“assigning, to a first participant from the plurality of participants, one or more functions to be performed by the first participant;

prior to a failure of the first participant that prevents the first participant from performing any of the one or more functions to be performed by the first participant,

designating a second participant from the plurality of participants to perform the one or more functions if any of one or more handoff criteria are satisfied;

the first participant communicating with the second participant to indicate that the second participant has been designated to perform the one or more functions if any of the one or more handoff criteria are satisfied;

in response to any of the one or more handoff criteria being satisfied, assigning the one or more functions to the second participant...”

The amendments to Claim 1 are fully supported by the application, and no new matter is included.



For example, regarding the additional feature of Claim 1 regarding “prior to the failure of the first participant that prevents the first participant from performing any of the one or more functions to be performed by the first participant,” the Application provides several different example situations under which a master participant is unable to perform the functions assigned to the master participant, such as that the master participant knows that it can no longer perform the assigned functions, that the master participant knows that it is moving out of range of the other participants or is experiencing a poor communications link, and that master participant has simply failed, which is detected by another participant, such as the associate master participant, due to a lack of communications from the master participant. (See Application, page 20, line 19 to page 21, line 12; see also Application, page 54, line 23 to page 55, line 10 and page 48, line 24 to page 49, line 10.)

As another example, regarding the additional feature of Claim 1 regarding “the first participant communicating with the second participant to indicate that the second participant has been designated to perform the one or more functions if any of the one or more handoff criteria are satisfied,” the Application explains that participant P5 of FIG. 1A is designated as an associate master participant by master participant P4 prior to the handoff criteria being satisfied as illustrated by block 124. (See Application, page 20, lines 5-11 and lines 19-25; see also Application, page 48, line 24 – page 49, line 49.)

The Office Action states that *Wang* discloses “assigning, to a first participant from the plurality of participants, one or more functions to be performed by the first participant (serving communication stations; col. 3, lines 6-10); designating a second participant (another communication station; column 1, line 55) from the plurality of participants to perform the one or more functions if any of one or more handoff criteria are satisfied; in response to any of the one or more handoff criteria being satisfied, assigning the one or more functions to the second participant (column 1, line 60-column 2, line 4)...” As understood by the Applicant based on these citations to *Wang*, the Office Action is taking base station 1 (BS1, the serving communication station) as the “first participant” in Claim 1 and base station 2 (BS2, the target communication station) as the “second participant” in Claim 1.

However, Claim 1 is amended above to feature “the first participant communicating with the second participant to indicate that the second participant has been designated to

perform the one or more functions if any of the one or more handoff criteria are satisfied,” and thus *Wang* would need to show that BS1 can communicate with BS2 to disclose this feature of Claim 1. But the different base stations, such as BS1 and BS2, in *Wang* cannot communicate with each other as indicated by Figure 1 of *Wang*, which illustrates the cells for each base station (e.g., cell 14-1 for BS1, cell 14-2 for BS2, and cell 14-3 for BS3).

In particular regarding Figure 1 of *Wang*, note that while there is some overlap between cells 14-1, 14-2, and 14-3 so that the mobile station MS is always within at least one cell, and while there is even a portion of *Wang*’s Figure 1 in which all three cells overlap, none of base stations BS1, BS2, and BS3 lies within the cell of another base station. Specifically, base station BS1 lies outside the dotted circles representing cell 14-2 served by base station BS2 and cell 14-3 served by base station BS3. Thus, while mobile station MS can experience uninterrupted experience by being transferred between the different base stations as mobile station MS moves along the mobile path 18 depicted in Figure 1 of *Wang*, base station BS1 cannot communicate with base station BS2 because base station BS1 is not within cell 14-2 served by base station BS2. Similarly, base station BS1 is also outside of cell 14-3 served by base station BS3, and likewise base station BS2 is outside of cells 14-1 and 14-3 and base station BS3 is outside of cells 14-1 and 14-2. Thus, as depicted in Figure 1 of *Wang*, the different base stations are not capable of communicating with each other.

Because *Wang* fails to disclose, teach, suggest, or in any way render obvious “prior to a failure of the first participant that prevents the first participant from performing any of the one or more functions to be performed by the first participant,...the first participant communicating with the second participant to indicate that the second participant has been designated to perform the one or more functions if any of the one or more handoff criteria are satisfied,” the Applicant respectfully submits that, for at least the reasons stated above, Claim 1 is allowable over the art of record and is in condition for allowance.

#### B. CLAIM 4

Claim 4 is directed to a method for managing, based on performance, a communications arrangement with a plurality of participants. As amended above, Claim 4 features the following, *inter alia*,

“selecting, based upon performance of a plurality of communications channels, a first communications channel from the plurality of communications channels;... providing the channel identification data to one or more participants from the plurality of participants; receiving at least a first communication from the one or more participants over the first communications channel from the plurality of communications channels, wherein the first communications channel is determined based on the channel identification data;... wherein the plurality of communications channels correspond to a set of frequencies and the first communication received from the one or more participants is based on a hopping sequence among at least two communications channels of the plurality of communications channels, according to a frequency hopping protocol.”

The amendments to Claim 4 are fully supported by the application, and no new matter is included.

For example, regarding the feature of “receiving at least a first communication from the one or more participants over the first communications channel from the plurality of communications channels, wherein the first communications channel is determined based on the channel identification data,” the Application explains in block 116 of FIG. 1D that a communication is received from the participant over the communication channel that is selected in block 114. (Application, page 19, lines 23-27; see also Application, page 38, line 19 to page 40, line 10.)

As another example, regarding the additional feature of Claim 22 regarding “wherein the plurality of communications channels correspond to a set of frequencies and the first communication received from the first participant is based on a hopping sequence among at least two communications channels of the plurality of communications channels, according to a frequency hopping protocol,” the Application explains frequency hopping in which the master hops to the next channel and waits for the master transmission time slot when the master transmits to a recipient, then the master hops to the next time slot to await a reply (see

Application, page 46, line 15 to page 47, line 16; see also Application, page 36, lines 4-8; page 38, line 25 to page 39, line 12; page 39, line 22 to page 40, line 6.) Note also that the Application describes the basic difference between frequency hopping (FH) and non-frequency hopping (NFH) systems as that in FH systems, the carrier hops over a set of frequencies according to a hopping sequence, whereas in the latter, the carrier does not hop over a set of frequencies to effect communications. (Application, page 3, lines 3-23.) Examples of such frequency hopping protocols are described as well, such as Bluetooth and several IEEE standards-based FH protocols. (Application, page 4, lines 1-17.)

The Office Action states that *Wang* discloses “selecting, based upon performance of a plurality of communications channels, a first communications channel (a channel used for communication; column 2, lines 1-3) from the plurality of communications channels;...providing the channel identification data to one or more participants from the plurality of participants (data provided when signal is transmitted); receiving at least a first communication from the one or more participants over a second communications channel (another channel from available channels; column 2, lines 1-3) from the plurality of communications channels, wherein the second communications channel is determined based on the channel identification data;...”

However, as amended above, the communications channel that is selected in Claim 4, as well as being identified by the channel identification data that is provided and over which the first communication is received, is one communications channel of the plurality of communications channels that corresponds to the “set of frequencies” and the “first communication received from the one or more participants is based on a hopping sequence among at least two communications channels of the plurality of communications channels, according to a frequency hopping protocol.” The portion of *Wang* that is cited in the rejection of Claim 4 noted above say nothing about a frequency hopping protocol or a hopping sequence, little less that a channel that is selected corresponds to one of the frequencies of the frequency hopping protocol.

In fact, the cited portion of *Wang* merely states that “Handoffs of communications are sometimes also effectuated due to channel traffic conditions or channel communication conditions irrespective of the repositioning of the mobile station.” (*Wang*, Col. 2, lines 1-3.)

Thus, it appears to the Applicant that the Office Action is based on interpreting this section of *Wang* as teaching that communications in Wang's system are handed off from one base station to another, even if the mobile station is not moving, due to channel communications conditions, meaning a change in base station due to the channel with the original base station degrading so that the mobile station would be better served by the communications being handed off to another base station. However, there is nothing in this passage that says when the mobile station is handed off from one base station to another that the channel is changed. Neither in the cited paragraph, or in the following paragraph of *Wang*, or in any other portion of *Wang* that the Applicant has found, is there any discussion or suggestion of a change in the communication channel being used, only that the mobile station is handed off from base station to base station. (Col. 2, lines 5-14.)

Even if the cited portions of *Wang* were correctly interpreted as disclosing a change in communications channel as part of the handoff of the mobile station from base station to base station, there is nothing either in the cited portions of *Wang* or elsewhere that the channels being used are included in a plurality of communications channels that correspond to a set of frequencies and that communications are received based on a hopping sequence among at least two communications channels of the plurality of communications channels, according to a frequency hopping protocol, as now featured in Claim 4. The Applicant has reviewed *Wang* and also performed electronic searches of *Wang*, yet the Applicant has found nothing in *Wang* about either "frequency hopping" or a "hopping sequence" as featured in Claim 4.

Because *Wang* fails to disclose, teach, suggest, or in any way render obvious "receiving at least a first communication from the one or more participants over the first communications channel from the plurality of communications channels" and "wherein the plurality of communications channels correspond to a set of frequencies and the first communication received from the first participant is based on a hopping sequence among at least two communications channels of the plurality of communications channels, according to a frequency hopping protocol," the Applicant respectfully submits that, for at least the reasons stated above, Claim 4 is allowable over the art of record and is in condition for allowance.

C. CLAIM 5

Claim 5 is amended above to include similar features to those included by the above amendments to Claims 1 and 4. For example, Claim 5 is amended above to include “prior to a failure of the first participant that prevents the first participant from performing any of the one or more functions to be performed by the first participant,... the first participant communicating with the second participant to indicate that the second participant has been designated to perform the one or more functions if any of the one or more handoff criteria are satisfied,” which is the same feature included in Claim 1 as amended above.

As another example, Claim 5 is amended above to include “wherein the plurality of communications channels correspond to a set of frequencies and the first communication received from the one or more participants is based on a hopping sequence among at least two communications channels of the plurality of communications channels, according to a frequency hopping protocol,” which is the same feature included in Claim 4 as amended above. Therefore, based on at least the reasons stated above with respect to Claims 1 and 4, the Applicant respectfully submits that Claim 5 is allowable over the art of record and is in condition for allowance.

D. CLAIM 22

Claim 22 is directed to a method for managing a communications arrangement. As amended above, Claim 1 features the following, *inter alia*,:

“determining the performance of a first communications channel of a plurality of communications channels between a first participant from the plurality of participants and one or more other participants from the plurality of participants;  
selecting, based upon the performance of the first communications channel between the first participant and the one or more other participants, a second participant from the one or more other participants;  
sending at least a first communication from the second participant over the first communications channel;...

wherein the plurality of communications channels correspond to a set of frequencies and the first communication received from the first participant is based on a hopping sequence among at least two communications channels of the plurality of communications channels, according to a frequency hopping protocol.”

The amendments to Claim 22 are fully supported by the application, and no new matter is included.

For example, regarding the additional feature of Claim 22 regarding “determining the performance of a first communications channel of a plurality of communications channels between a first participant from the plurality of participants and one or more other participants from the plurality of participants,” the Application explains that some or all of a set of channels can be tested to determine channel performance. (See Application, page 17, lines 18-24; see also Application, page 29, line 3 to page 33, line 9.)

As another example, regarding the additional feature of Claim 22 of “sending at least a first communication from the second participant over the first communications channel,” the Application explains that a master participant P4 can send a communication to associate master P5 over channel 17 that was previously selected based on its performance. (Application, page 26, lines 24-27; see also Application, page 68, line 20 to page 70, line 11.)

As yet another example, regarding the additional feature of Claim 22 of “wherein the plurality of communications channels correspond to a set of frequencies and the first communication received from the first participant is based on a hopping sequence among at least two communications channels of the plurality of communications channels, according to a frequency hopping protocol,” the Application explains frequency hopping in which the master hops to the next channel and waits for the master transmission time slot when the master transmits to a recipient, then the master hops to the next time slot to await a reply (see Application, page 46, line 15 to page 47, line 16; see also Application, page 36, lines 4-8; page 38, line 25 to page 39, line 12; page 39, line 22 to page 40, line 6.) Note also that the Application describes the basic difference between frequency hopping (FH) and non-frequency hopping (NFH) systems as that in FH systems, the carrier hops over a set of frequencies according to a hopping sequence, whereas in the latter, the carrier does not hop

over a set of frequencies to effect communications. (Application, page 3, lines 3-23.)

Examples of such frequency hopping protocols are described as well, such as Bluetooth and several IEEE standards-based FH protocols. (Application, page 4, lines 1-17.)

The Office Action states that *Wang* discloses “determining the performance of a first communications channel between a first participant from the plurality of participants and one or more other participants from the plurality of participants (column 2, lines 1-3; column 2, lines 38-42; column 2, line 55); and selecting, based upon the performance of the first communications channel between the first participant and the one or more other participants, a second participant (column 2, lines 5-13; another transceiver).”

As discussed above with respect to Claim 4, the Applicant respectfully submits that Claim 22 is allowable over *Wang* for the same reasons as discussed above with respect to Claim 4. Although in Claim 4, a communications channel is selected based on the performance of the plurality of communications channels, whereas in Claim 22, a second participant is selected based on the performance of the first communications channel, both Claims 4 and 22 are amended above to include the feature of “wherein the plurality of communications channels correspond to a set of frequencies and the first communication received from the first participant is based on a hopping sequence among at least two communications channels of the plurality of communications channels, according to a frequency hopping protocol,” which is not disclosed by *Wang*.

Therefore, based on at least the reasons stated above with respect to Claim 4, the Applicant respectfully submits that Claim 22 is allowable over the art of record and is in condition for allowance.

D. CLAIMS 28, 38, 41, 42, 43, 44, 46, 48

Claims 28, 38, 41, 42, 43, 44, 46, and 48 contain features that are similar to those described above with respect to Claims 1, 5, and 22 are therefore allowable for the same reasons as given above.

(1) CLAIMS 38 AND 44

For example, Claim 38 includes “prior to a failure of the first participant that prevents the first participant from performing any of the one or more functions to be performed by the



first participant...the first participant communicating with the second participant to indicate that the second participant has been designated to perform the one or more functions if any of the one or more handoff criteria are satisfied,” which is the same as in Claim 1.

Likewise, Claim 44 includes “prior to a failure of the first communications device that prevents the first communications device from performing any of the one or more functions...communicate with the second communications device to indicate that the second communications device has been designated to perform the one or more functions if any of the one or more handoff criteria are satisfied,” which is similar to Claim 1.

Therefore, based on at least the reasons stated above with respect to Claim 1, the Applicant respectfully submits that Claims 38 and 44 are allowable over the art of record and are in condition for allowance.

(2) CLAIMS 41 AND 46

As another example, Claim 41 includes “receiving at least a first communication from the one or more participants over the first communications channel from the plurality of communications channels, wherein the first communications channel is determined based on the channel identification data” and “wherein the plurality of communications channels correspond to a set of frequencies and the first communication received from the one or more participants is based on a hopping sequence among at least two communications channels of the plurality of communications channels, according to a frequency hopping protocol,” which is the same as in Claim 4.

Likewise, Claim 46 includes “receive at least a first communication from the one or more participants over the first communications channel from the plurality of communications channels, wherein the first communications channel is determined based on the channel identification data, which is similar to Claim 4, and “wherein the plurality of communications channels correspond to a set of frequencies and the first communication received from the one or more participants is based on a hopping sequence among at least two communications channels of the plurality of communications channels, according to a frequency hopping protocol,” which is the same as in Claim 4.

Therefore, based on at least the reasons stated above with respect to Claim 4, the Applicant respectfully submits that Claims 41 and 46 are allowable over the art of record and are in condition for allowance.

(3) CLAIMS 42 AND 28

As yet another example, Claim 42 includes “prior to a failure of the first participant that prevents the first participant from performing any of the one or more functions to be performed by the first participant,... the first participant communicating with the second participant to indicate that the second participant has been designated to perform the one or more functions if any of the one or more handoff criteria are satisfied” and “wherein the plurality of communications channels correspond to a set of frequencies and the first communication received from the one or more participants is based on a hopping sequence among at least two communications channels of the plurality of communications channels, according to a frequency hopping protocol,” both of which are the same as in Claim 5.

Likewise, Claim 28 includes “prior to a failure of the communications device that prevents the communications device from performing any of the one or more functions,...communicate with the second communications device to indicate that the second communications device has been designated to perform the one or more functions if any of the one or more handoff criteria are satisfied,” which is similar to Claim 5, and “wherein the plurality of communications channels correspond to a set of frequencies and the first communication received from the one or more participants is based on a hopping sequence among at least two communications channels of the plurality of communications channels, according to a frequency hopping protocol,” which is the same as in Claim 5.

Therefore, based on at least the reasons stated above with respect to Claim 5, the Applicant respectfully submits that Claims 28 and 42 are allowable over the art of record and are in condition for allowance.

(4) CLAIMS 43 AND 48

As a final example, Claim 43 includes “determining the performance of a first communications channel of a plurality of communications channels between a first participant from the plurality of participants and one or more other participants from the plurality of

participants,... sending at least a first communication from the second participant over the first communications channel; ...and wherein the plurality of communications channels correspond to a set of frequencies and the first communication received from the first participant is based on a hopping sequence among at least two communications channels of the plurality of communications channels, according to a frequency hopping protocol,” which is the same as in Claim 22.

Likewise, Claim 48 includes “determine the performance of a first communications channel of a plurality of communications channels between the first communications device and one or more other communications devices from the plurality of communications devices” and “send at least a first communication from the second communications device over the first communications channel,” both of which are similar to Claim 22, and “wherein the plurality of communications channels correspond to a set of frequencies and the first communication received from the first participant is based on a hopping sequence among at least two communications channels of the plurality of communications channels, according to a frequency hopping protocol,” which is the same as in Claim 22.

Therefore, based on at least the reasons stated above with respect to Claim 22, the Applicant respectfully submits that Claims 43 and 48 are allowable over the art of record and are in condition for allowance.

E. CLAIMS 2, 6, 8-11, 13, 17, 19, 23-25, 29, 32-33, 36-37, 39, 45, 47, 49-51, 52, 53-54, 55-62, AND 64-66

Claim 2 is dependent upon Claim 1, Claim 52 is dependent upon Claim 4, Claims 6, 8-11, 13, 17, and 19 are dependent upon Claim 5, Claims 23-25 are dependent upon Claim 22, Claims 29, 32-33, 36-37, and 53-54 are dependent upon Claim 28, Claim 39 is dependent upon Claim 38, Claim 63 is dependent upon Claim 41, Claims 55-62 are dependent upon Claim 42, Claims 64-66 are dependent upon Claim 43, Claim 45 is dependent upon Claim 44, Claim 47 is dependent upon Claim 46, and Claims 49-51 are dependent upon Claim 48. Each of Claims 2, 6, 8-11, 13, 17, 19, 23-25, 29, 32-33, 36-37, 39, 45, 47, 49-51, 52, 53-54, 55-62, and 64-66 is therefore allowable for the reasons given above for Claims 1, 4, 5, 22, 28, 38, 41, 42, 43, 44, 46, and 48. In addition, each of Claims 2, 6, 8-11, 13, 17, 19, 23-25, 29, 32-33, 36-37, 39, 45, 47, 49-51, 52, 53-54, 55-62, and 64-66 introduces one or more additional

limitations that independently render it patentable. However, due to the fundamental differences already identified, to expedite the positive resolution of this case a separate discussion of those limitations is not included at this time. Therefore, it is respectfully submitted that Claims 2, 6, 8-11, 13, 17, 19, 23-25, 29, 32-33, 36-37, 39, 45, 47, 49-51, 52, 53-54, 55-62, and 64-66 are allowable for the reasons given above with respect to Claims 1, 4, 5, 22, 28, 38, 41, 42, 43, 44, 46, and 48.

## CONCLUSION

The Applicant believes that all issues raised in the Office Action have been addressed and that allowance of the pending claims is appropriate. After entry of the amendments, further examination on the merits is respectfully requested.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

For the reasons set forth above, it is respectfully submitted that all of the pending claims are now in condition for allowance. Therefore, the issuance of a formal Notice of Allowance is believed next in order, and that action is most earnestly solicited.

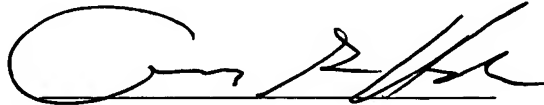
To the extent necessary to make this reply timely filed, the Applicant petitions for an extension of time under 37 C.F.R. § 1.136.

If any applicable fee is missing or insufficient, throughout the pendency of this application, the Commissioner is hereby authorized to any applicable fees and to credit any overpayments to our Deposit Account No. 50-1302.

Respectfully submitted,

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Date: April 10, 2006



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**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Hon. Commissioner for Patents, Mail Stop AMENDMENT, P.O. Box 1450, Alexandria, VA 22313-1450.

on April 10, 2006 by Lacy Reynolds